

# GEO Paris Agreement Workshop

## *Concept Note v3 (23 Jan 2018)*

**Date:** May/June, 2018, TBD (possibly back-to-back with GEO Symposium);

**Location:** WMO building, Geneva, Switzerland

## BACKGROUND

Earth observations (EO) can support effective policy and decision making for climate change mitigation and adaptation. The Group on Earth Observations (GEO) is working to enhance global observation systems in support of the Paris Climate Agreement<sup>1</sup> which was adopted in 2015 (and entered into force in 2016). GEO's strategic engagement priorities include the Paris Agreement, the UN 2030 Agenda for Sustainable Development and the Sendai Framework for Disaster Risk Reduction. Climate change cuts across all areas of GEO's work, as highlighted in the GEO Strategic Plan<sup>2</sup> which emphasizes the crucial role that EO can play in addressing climate change and supporting the work of the United Nations Framework Convention on Climate Change (UNFCCC). The Paris Agreement calls on Parties to "strengthen scientific knowledge on climate, including research, systematic observation of the climate system and early warning systems, in a manner that informs climate services and supports decision-making" (Article 7.7c).

In 2016, GEO was endorsed to have independent eligibility to apply for side events and exhibits at UNFCCC Sessions which evidences the increasing recognition of the value of EO for the Convention. The Subsidiary Body for Scientific and Technological Advice (SBSTA) is recently putting an increased emphasis on "systematic observations" - a term used within the UNFCCC context for EO. At COP 22, Marrakech, 2016, an Earth Information Day<sup>3</sup> was held to connect information and requirements between the science community, Party and non-Party stakeholders to benefit the implementation of the Paris Agreement. The event featured speakers from the UN and international organizations, including GEO, and the scientific community. Ahead of COP 23, Bonn, 2017, an Information Note<sup>4</sup> by the SBSTA Chair was presented to support Parties in their work at SBSTA 47 on systematic observations, listing GEO as a key partner. SBSTA 47<sup>5</sup> noted, among other things, the

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<sup>1</sup> [http://unfccc.int/files/essential\\_background/convention/application/pdf/english\\_paris\\_agreement.pdf](http://unfccc.int/files/essential_background/convention/application/pdf/english_paris_agreement.pdf)

<sup>2</sup> [http://www.earthobservations.org/documents/GEO\\_Strategic\\_Plan\\_2016\\_2025\\_Implementing\\_GEOSS.pdf](http://www.earthobservations.org/documents/GEO_Strategic_Plan_2016_2025_Implementing_GEOSS.pdf)

<sup>3</sup> [http://unfccc.int/files/science/workstreams/systematic\\_observation/application/pdf/earthinformationday.2016.1.summaryreport.pdf](http://unfccc.int/files/science/workstreams/systematic_observation/application/pdf/earthinformationday.2016.1.summaryreport.pdf)

<sup>4</sup> [http://unfccc.int/files/science/workstreams/systematic\\_observation/application/pdf/so\\_2017\\_1\\_informationnote\\_29.10.17.pdf](http://unfccc.int/files/science/workstreams/systematic_observation/application/pdf/so_2017_1_informationnote_29.10.17.pdf)

<sup>5</sup> <http://unfccc.int/resource/docs/2017/sbsta/eng/l21.pdf>

“increasing capability to systematically monitor greenhouse gas concentrations and emissions, through in situ as well as satellite observations, and its relevance in support of the Paris Agreement” and “encouraged Parties and relevant organizations to enhance systematic observations related to the monitoring of GCOS essential climate variables and the understanding and prediction of extreme events and slow onset events”. During SBSTA 47, the SBSTA Chair met with members of the systematic observation community including WMO, GCOS, CEOS, CGMS, GEO, WCRP and IPCC for an informal strategy meeting, looking at how the observation community can synergize its work to support process for annual reports on the state of the climate, the global stocktake and for the National Adaptation Plan (NAP) and Loss & Damage work streams.

GEO articulated the potential of EO to respond to specific articles in the Paris Agreement at COP-23<sup>6</sup> during the exhibition and a joint Side Event<sup>7</sup> with GCOS and RESTEC on “Integrated observations for mitigation and adaptation & Practical support to Parties”. The event highlighted the importance of collaborative work and partnerships to scale up data solutions at the international and national levels. This was followed by the Bonn Declaration<sup>8</sup> from the UN/Germany International Conference on International Cooperation for Low Emission and Resilient Societies which calls on “the World Meteorological Organization, other relevant United Nations entities, the Group on Earth Observations, and other relevant organizations, to facilitate together the identification of relevant satellite data and information as a way to respond to the demand for such data and information from stakeholders, particularly from developing countries, for the implementation of the Sendai Framework, the Paris agreement and the 2030 Agenda for Sustainable Development.” Recently, heads of space agencies acknowledged the requirement for sustained, high accuracy space observations<sup>9</sup>. Important progress is made by the satellite community, in collaboration with GCOS, on the development of an Inventory of Essential Climate Variables – an effort based on a “Strategy Towards an Architecture for Climate Monitoring from Space”<sup>10</sup> which was developed by CEOS, CGMS and WMO.

The GCOS Implementation Plan<sup>11</sup> (IP) considers observational requirements to monitor emissions and emission reductions, information needs for assessing adaptation to climate change and climate resilience, data needs for public awareness and capacity development. Table B in the GCOS IP links GCOS actions to different articles in the Paris Agreement, including:

- National Reporting (Articles 4 and 13)
- Mitigation: Knowledge of evolution of sinks and sources (Article 5)
- Adaptation: Strengthening cooperation (Article 7.6)
- Scientific knowledge and systematic observations (Article 7.7)

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<sup>6</sup> <https://www.earthobservations.org/geocatcop23.php>

<sup>7</sup> Presentations available at [https://www.earthobservations.org/geocatcop23.php?t=mit\\_adapt](https://www.earthobservations.org/geocatcop23.php?t=mit_adapt), and report available at <http://enb.iisd.org/climate/cop23/enbots/8nov.html#event-3>

<sup>8</sup> [http://www.un-spider.org/news-and-events/events/united-nationsgermany-international-conference-international-cooperation?utm\\_source=mailing-list&utm\\_medium=referral&utm\\_campaign=oct-nov-17-update](http://www.un-spider.org/news-and-events/events/united-nationsgermany-international-conference-international-cooperation?utm_source=mailing-list&utm_medium=referral&utm_campaign=oct-nov-17-update)

<sup>9</sup> [https://www.oneplanetsummit.fr/IMG/pdf/paris\\_declaration\\_towards\\_a\\_space\\_climate\\_observatory-2.pdf](https://www.oneplanetsummit.fr/IMG/pdf/paris_declaration_towards_a_space_climate_observatory-2.pdf)

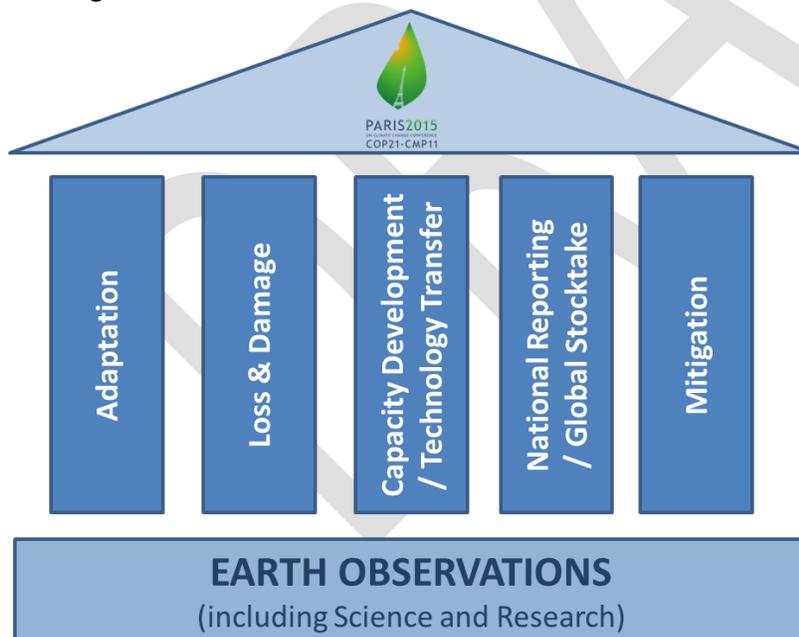
<sup>10</sup> [http://www.wmo.int/pages/prog/sat/documents/ARCH\\_strategy-climate-architecture-space.pdf](http://www.wmo.int/pages/prog/sat/documents/ARCH_strategy-climate-architecture-space.pdf)

<sup>11</sup> WMO (2016): The Global Observing System for Climate: Implementation Needs. GCOS-200

- Loss and Damage (Article 8)
- Technology Transfer (Article 10)
- Capacity Development (Article 11)
- Global Stocktaking (Article 14)

The GCOS Steering Committee has currently charged a task team to investigate into the question of how climate observations can help to address the Paris Agreement. The outcomes of this task team will be an important input to the envisaged workshop which aims on complementing the efforts of GCOS and building synergies. Further, the outcomes of a workshop organized by GCOS in 2015 on “Enhancing Observations to Support Preparedness and Adaptation in a Changing Climate”<sup>12</sup> will be taken into account.

The relevant articles in the Paris Agreement can be grouped into a set of pillars to which EO can make a significant contribution (Fig. 1). However, while the potential action areas for the EO community are fairly well known, it remains unclear how well it is currently positioned to provide direct support to the individual areas, and where immediate opportunities are. There is great potential of activities in the GEO Work Programme (WP) to support areas such as adaptation and loss&damage but a systematic process to tailor the activities to the climate policy needs and align them with other ongoing efforts is lacking. The workshop is expected to enhance the understanding of GEO’s role and to develop pathways towards a more systematic approach to address areas in the Paris Agreement.



**Figure 1.** Pillars relating to articles in the Paris Agreement to which Earth observations are foundational.

<sup>12</sup> [http://unfccc.int/files/documentation/submissions\\_from\\_non-party\\_stakeholders/application/pdf/543.pdf](http://unfccc.int/files/documentation/submissions_from_non-party_stakeholders/application/pdf/543.pdf)

## OBJECTIVES

The overall ambition for the workshop is to increase the understanding of how the EO community can support the implementation of the Paris Agreement. The workshop should look at all relevant activities including those currently not captured within the GEO WP in order to avoid duplication and to identify potential synergies. It will address all areas across the Paris Agreement to which EO can potentially contribute and aims on taking stock of the current assets in the GEO WP and those of key organizations, such as UNFCCC and IPCC, in order to identify gaps and to develop tangible action areas. The workshop should provide recommendations on how to better align the existing WP activities to support the Paris Agreement and potentially call for new Initiatives in order to better fulfill the needs emerging from the Paris Agreement.

A mapping exercise will be carried out in advance of the workshop to identify potential contributions to the Paris Agreement across the GEO WP. This exercise is expected to facilitate a gap analysis that will further inform the workshop. The results of an initial mapping done by the GEO Secretariat is presented in Appendix A and will be complemented by a more systematic analysis involving all relevant GEO activities. It is foreseen to further extend this analysis beyond GEO WP activities in the future.

For the workshop, a two-stage approach is envisaged, including a first workshop in 2018 focusing on the EO community with guidance from organizations within the UN, such as GCOS, IPCC, WMO, UNFCCC, and other key stakeholders involved in national policy processes related to Nationally Determined Contributions (NDCs) and National Adaptation Plans (NAPs), followed by a second event in late 2018 or 2019, which will focus on a broader, more policy-relevant audience.

The specific objectives are envisaged as follows:

### **Pre-workshop (Jan-May)**

- Identify relevant articles in the Paris Agreement
- Develop a set of pillars from those articles
- Map GEO WP activities and those of key partners to these pillars (*process to be initiated by PB*)

### **1<sup>st</sup> Workshop (May)**

- Discuss the current situation of how EO is contributing to the Paris Agreement
- Showcase ongoing WP activities in line with the pillars (including success stories)
- Learn about relevant activities beyond the GEO WP
- Identify gaps that provide opportunities for GEO and develop concrete action areas
- Recommend new WP activities or alignment of existing activities

### **Post-workshop (after May)**

- Align GEO WP activities with the action areas identified in the workshop

- Explore development of new WP activities according to the action areas
- Plan for a second workshop, involving a broader policy-relevant audience

## PARTICIPANTS

- 1) Representatives of relevant GEO activities:
  - *GEO-C, GFOI, Blue Planet, Regional Initiatives and others*
- 2) International organizations:
  - *UNFCCC, IPCC, WMO, CEOS, GCOS, WCRP etc.* (to give guidance/advice and ensure policy linkages)
- 3) National representatives
  - In particular from Small Island States and Least Developed Countries (to bring the perspective on needs for adaptation and loss & damage)

## EXPECTED OUTCOMES

- Enhanced understanding of GEO's role in implementing the Paris Agreement
- Identified user requirements and gaps of current activities and opportunities
- Agreement on GEO action areas and recommendations of potential new activities
- Recommendations to better align ongoing activities (within or outside the GEO community)
- Involvement of relevant stakeholders in the process and defined role of GEO

## SCHEDULE

Timeline	Milestone	Action
Mid Dec 2017	Sub-group kick-off teleconference	Discuss draft concept note Agree on timeline and overall process Schedule next calls
Dec-Jan		Refine concept note Define pillars Initial mapping exercise
Mid Jan 2018	2 <sup>nd</sup> Sub-group teleconference	Discuss revised concept note
31 Jan-1 Feb	8 <sup>th</sup> PB meeting (3 <sup>rd</sup> Sub-group meeting)	Discuss and approve concept note (including draft agenda) Launch process to map GEO Work Programme activities to relevant areas of

		the Paris Agreement (pillars)
Feb-Apr		Request GEO activities to contribute to the mapping exercise Prepare workshop (invitations, agenda, discussions with key participants etc.)
Early April	4 <sup>th</sup> Sub-group teleconference	Check the status and prepare for PB meeting
Mid May	9 <sup>th</sup> PB meeting	Discuss and approve agenda
<b>May/June</b>	<b>1<sup>st</sup> Paris Agreement Workshop</b>	Co-located with GEO Symposium
June	5 <sup>th</sup> Sub-group teleconference	Debrief workshop results Plan 2nd workshop
Nov	Side Event at GEO Plenary	TBD
Dec	Side Event at COP24	TBD
2018/2019	2 <sup>nd</sup> Paris Agreement Workshop	TBD

## PLANNING TEAM

### PROGRAMME BOARD SUB GROUP 1

Japan (Lead)	Osamu Ochiai, Hiroyuki Muraoka
Canada	Cathy Nielsen, Marie-Josée Bourassa
EC	Mark Dowell
France	Thierry Ranchin
Italy	Antonio Bombelli, Stefano Nativi
South Africa	Imraan Saloojee
UK	Heiko Baltzer, Stuart Marsh
US	Yana Gevorgyan
CEOS	Kerry Sawyer, Steven Hosford, Pascal Lecomte
COSPAR	David Halpern
ESA	Ivan Petiteville
ESIP	Kathleen Fontaine, Erin Robinson
IOC	Albert Fischer
WDS	Arona Diedhiou
WMO/GCOS	TBC

### GEO SECRETARIAT

Andre Obregon, Climate Coordinator  
Akiko Noda, Disaster Expert and Climate Support

**APPENDIX A.** Initial results of mapping exercise (GEO Work Programme activities vs. relevant pillars extracted from the Paris Agreement)




	Mitigation	Adaptation	Loss & Damage	National Reporting / Global Stocktake	Capacity Development / Technology Transfer
<b>GEO FLAGSHIPS</b>					
GEOGLAM					
GFOI					
GEO BON					
GOS4M					
<b>GEO INITIATIVES</b>					
AquaWatch					
AfriGEOSS					
AmeriGEOSS					
AOGEOSS					
GEO-CCIOoACZ					
GEO-DARMA					
EO4EA					
EO4SDG					
EuroGEOSS					
GEO-C					
GEOCRI					
GSNL					
GEO ECO					
GEO-GNOME					
GEOGLOWS					

Initial mapping ver0 (15-Jan-2018)

GEO Human Planet					
GEOSS-EVOLVE					
GEO-VENER					
GEO Wetlands					
GDIS					
GOS4POPS					
GUOI					
GWIS					
Blue Planet					
<b>COMMUNITY ACTIVITIES (selected)*</b>					
Acces to Climate Data					
C3S					
CAMS					
DIAS					
GEO-CRADLE					
Global Agricultural Drought Monitoring					
GloFAS					
reslience.io					
TIGGE					
...					

\* TBD whether to include Community Activities